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Agricultural Education

One Section of the Sixty-five Teams Entered in the Dairy Judging Contest at the Missouri Vocational Agriculture Students Conference in 1930

"If a man does not know to what port he is sailing, no wind is favorable."

—SENECA.

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EDITORIAL COMMENT

AGRICULTURAL EDUCATION

A monthly magazine for teachers of agriculture. Managed by an editorial board chosen by the Agricultural Section of the American Vocational Association and published at cost by the Meredith Publishing Company, at Des Moines, Iowa.

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VOL. III, NO. I

THIS issue of *Agricultural Education* is the first of the third volume. Volume II, therefore, contains but six numbers.

The purpose in changing the starting point for the volume of the year is to more nearly conform with the contract year of the vocational agriculture teacher. The majority of the new teachers begin employment during the summer months; old teachers change positions at the same dates. Another advantage is evident in connection with the subscriptions of students in teacher training departments, more and more of whom are subscribing to *Agricultural Education* as a current text-book in their field.

The change need make no material difference to subscribers. When your subscription expires, if in January, it is suggested that you renew by sending $1.50 for a year and a half, thus placing your expiration date in July, at the close of a volume.

NEXT YEAR—BETTER

THE teacher who does not plan to do a better job next year than he did this year should resign his position at once—he'll not succeed.

Such planning must be more than hoping, or the vague sort of mental perigrinations which we sometimes call planning. The only worthwhile sort of planning is that which is definite, ordered, visible, purposeful, and productive.

Such a plan must originate in an active and intelligent mind, and must show tangible evidence of progress in the form of written statements. It must be formulated on the basis of past experience in the light of present knowledge and future needs.

Of all of the plans which the vocational teacher must make, there is one which is fundamental, in that all others are dependent thereon. This is the plan commonly known as the Long Time Program. It embodies a statement of the objectives to be accomplished by the vocational agriculture department together with the methods to be followed in their attainment.

If you have not formulated such a program—get busy; if you have, review it, check progress, and revise where it seems desirable.

SERIES BY DR. KRUSE

BEGINNING with this issue, we are presenting three articles by Dr. Paul J. Kruse of Cornell University.

Dr. Kruse is a practical psychologist of wide reputation. As head of the rural life department at Ithaca he is in a position to write helpfully on the work of the vocational agriculture teacher. He writes interestingly, so we know that you will enjoy these articles as well as profit therefrom.

OUR MAGAZINE

THE Editor has received several letters from men in the field referring to *Agricultural Education* as "your" magazine.

We hope that this was only a slip of the typewriter and that what the writers really meant was "our" magazine. The Editors have but a small share in the total responsibility for *Agricultural Education*. It was conceived co-operatively and should be carried on in the same way.

If it is "our" magazine, let's think and talk and write of it in that way.

STUDENT ARTICLES

IF YOU have noted the authors of the recent articles in *Agricultural Education*, you will have seen that some of them are vocational agriculture students.

We are glad to use contributions of this kind when they tell a story or offer information which is of interest and value to other students and teachers. *The student's view is of utmost importance.*

We are inclined to think that many teachers are likely to become "routinized" and to forget all they ever knew about boy psychology. They teach day after day thinking mainly in terms of subject matter, losing sight of the important factor, the *attitude of the boy*.

These student articles may be of value in that they will reflect this attitude.

ARE FARMERS ULTRA-CONSERVATIVE?

A GOOD deal of our rationalizing of our failures in agricultural education is to the effect that farmers, as a class, are too backward and unprogressive to take advantage of the fine things we should like to do for them.

We doubt whether this is often an important reason for our failure to get results. We can expect to find some ultra-conservatives among farmers as among other classes; but there seems to be no good reason for believing that, as a group, they are more immune to progress than other groups.

Farmers are not adverse to increasing their earnings, to bettering their living conditions. The record of their rapid increase in productive efficiency during this century, which is shown by the United States Census Bureau to have kept pace with the increase in production by city dwellers, gives the lie to a favorite alibi.

Probably a truer way to account for the backwardness of farmers in accepting our help would be to admit, first, that the help we have proffered has not always been sound and appropriate; second, that we have not always put matters before them in the manner they would have to be put to convince a competent business man or industrialist. The facts are that often they have been doing straighter thinking than we with respect to the problems they were facing.

We hear a great deal to the effect that, since the older generation of farmers is hopeless, we must begin to re-create rural life by bringing up a new generation. This is mostly hokum. A sound program can be sold to the older generation. To perpetrate any other kind of program upon the boys and girls would be criminal. Further, few results can be secured with boys and girls without adult co-operation.

Our judgments as to what is progress rest, of course, upon our own personal subjective sense of values. Having lived longer than the average teacher of agriculture, mature farmers have a different and often a more profound philosophy of life which leads them to assign to our plans and projects values quite different than we give them. This difference must be taken into account and respected.

—H. M. H.

Professional

The Teacher's Job

PAUL J. KRUSE, Department of Rural Education, Cornell University, Ithaca, New York

P. J. Kruse

WHAT is the farmer's job? To produce food-, clothing-, and shelter-stuffs for man and beast. What is the manufacturer's job? To work over this raw material into a finished product. The transporter's job is to carry this product to a point where the distributor in his turn makes it available directly to the user. The result of the activity of workers in each of the fundamental fields of agriculture, manufacture, transportation, and distribution is a product.

Change has been effected thru control of natural forces; chiefly those of growth in the case of agriculture, of physical forces in manufacture and transportation, and increasingly the forces back of human behavior in the case of distribution. In a very real sense there is in each case a resulting product, whether of raw materials, finished product, change of location, or change of ownership. While we commonly think of the farmer as basically the producer and the others as transformers of raw materials, it is clear that the difference is one of relativity. They are all concerned with bringing about changes, toward making an article of use available to the user. Obviously not even the farmer is a creator.

Education A Form of Production

There is a saying, intended it would seem to suggest to the teacher the lack of virility and objectiveness in his calling, to the effect that, "He who can, does; he who can't teaches." This statement indicates a failure to recognize the teacher as a producer and teaching as a form of production.

In what sense is the teacher a producer? What is the product of his activity? He is a producer in the sense that he brings about changes thru control over the forces of nature, as in the case of the workers mentioned above. The changes he brings about are in the behavior of other humans, and the product of his activity is a human being changed as to his behavior. Let us try to see what this means.

A child who on beginning school cannot get meaning from a printed page becomes changed thru responses to influences brought to bear so that he is able to read. That is, a given situation, a printed page, gets from him a different response from that which it brought before he was subjected to these influences.

A high school boy learns that the square erected on the hypothenuse of a high-angled triangle is equal in area to the sum of the squares on the other two sides; and he may learn how to cut rafters accordingly. His behavior in a given situation is different from what it was before.

Again, a boy's attitude toward the study of methods of combating certain plant diseases changes from that of passive interest to eager enthusiasm thru a realization of the relation to success in a potato-growing project. This process of *production of changes in human behavior we call education.* In so far as the teacher has had a planned share in controlling the forces back of these changes in behavior he is a producer.

While the illustrations of changed behavior used above are such as relate normally to school activity, this is not necessarily the case. One may obviously become changed as to his behavior, whether in relation to reading, or knowledge of geometry, or interest in study of plant diseases with a minimum of aid from teacher or school. The essential thing in education is a product in the way of changed behavior. The teacher may be an aid. He may also be a hindrance. In what way he may function effectively will be considered later.

It should be noted in passing that our definition of education carries no implication as to the desirability of the change. It is a psychological definition and hence undertakes no evaluation of the change. A person may acquire skill in burglarizing, or knowledge of how to defraud a client and still keep clear of the law, or an attitude of intolerance of the beliefs of others. The process is still one of change in behavior. The direction is a question of social ethics rather than of psychology.

Kinds of Changes

Try to think of all the changes in behavior that should be wrought in boys of high school age. If this is too big a task, do it for boys of a given age who are following a particular curriculum in a given school. You will find that the changes all fall fairly readily into one or another of the three following general classes:

1. Knowledges, i.e., things known (facts, rules, principles, laws).
2. Skills, i.e., things done (reading, writing, walking, thinking).
3. Attitudes, i.e., things felt (importance of thoroness, interest in improving livestock).

It is not argued that these three classes are clearly delimited, one from another. It could be maintained that facts are not truly known until they are used, until something is done with them; that there is really no change in behavior until something is done. This may be granted at once. Still it is urged that from the standpoint of teaching, and as a basis of determining procedures, learning to write is usefully distinguished a a type of behavior from learning that "Holstein" is the name of a breed of cattle.

It has proven a great help to many teachers to set up their objectives in terms of these types of changes. Let us take the teaching of geography by way of illustration. Many of the facts and principles of geography constitute items of knowledge possession of which may constitute a worthwhile objective in teaching. What particular facts and principles are to be taught will obviously depend upon the circumstances of location and pupil personnel. In this country all who would give the matter thought would probably agree that one may well know that standard time is one, two, and three hours earlier in the Central, Rocky Mountain, and Pacific regions as compared with the Atlantic seaboard region.

Now, however, if the teacher of geography bears in mind the next type of change, he will be alert to note what skills his subject may well serve to develop. Map reading may thus be given a specific place as an objective in teaching. I venture that map making has traditionally held a larger place in geography teaching than map reading. This may have been to the end of learning the location of places rather than for the purpose of developing skill in map making. The point is that if the teacher thinks in terms of the kind of change to be sought, he may be guided to a selection of the most appropriate unit.

Again if the geography teacher reflects that attitudes constitute an important type of change in behavior he may be stimulated to look for those which his subject is particularly suited to develop. Respect for the ways of other people who differ from us would seem to be an objective of geography teaching falling in this class.

A recognition by the teacher of these three classes of changes, or any other which he may find serve his purposes better, should promote balance in his teaching and stimulate alertness in a search for materials effective toward given ends. A teacher of agriculture might thus be encouraged to decide deliberately whether he will have his pupils learn the names and characteristics of all breeds of cattle, or whether he will be content with learning those fairly common to his region, thus saving time for the learning of other facts or for the acquisition of skills or attitudes appropriate to animal husbandry.

The Work of The Teacher Examined

What now is the job of the teacher? It is that of control of forces so as to bring about the product of changed behavior. More specifically, *teaching is*

(Continued on next page)

the setting of situations in order to stimulate behavior that will result in desired changes.

Careful examination of this statement should help make clear the essential nature of the work of the teacher.

Note first that *activity on the part of the teacher* is involved, but *to the end of stimulating behavior on the part of the learner.* It would be a great deal easier many times for the teacher to solve a given problem than to bring it about that the pupil solves it. Since, however, it is the pupil's behavior that is to be changed, the teacher must get some of it to work on. Every successful teacher knows that some sort of activity even tho unorthodox is better than passivity. He always prefers a mischievous child and therefore an active one, to a stupid one.

Note next that the statement implies *purpose on the part of the teacher.* As indicated above education is not limited to relationship with schools and teachers. Fortunately, there is much learning incidental to life processes. But teaching is a deliberate controlling of conditions to the end of influencing subsequent behavior.

Note further that the statement indicates *specificity of objectives.* It is not sufficient that the teacher get some kind of behavior from the learner. Any chance passer-by may do as much. If a teacher is to function effectively he must set up in his planning certain objectives in the way of changes in behavior and then manage his situations accordingly.

It follows, according to the position here taken, that the test of teaching is ultimately in the product resulting in the way of changed behavior, and immediately in the activity of the pupil toward objectives set by the teacher. Whether the pupil is aware of the objectives of the teacher will depend on the circumstances. That he should be aware of his own objectives is clear. These may range from doing what the teacher asks to self-improvement in study. The former obviously is not in terms of a change to be effected, but merely an outer demand to be satisfied. If the teacher has been wise in the task set there may be a worthwhile resulting product. But unless he knows what change he hopes to effect in the subsequent behavior of the pupil thru the latter's present activity, it may well be no more than busy-work.

An illustration may help make the meaning clear. At a discussion of vocational education by a group of teachers the question was raised: "How long should a boy be kept hauling manure?" Some answered at once—"Until the manure is all hauled." Others were disposed to inquire as to the objectives in the activity of hauling manure. If the objective was to get the manure hauled then at once the problem was one not of education but of a farm operation, change in location of the manure. The supposition, however, was that since a school pupil was set at hauling the manure there must have been an educational objective. If this was to have the boy learn how to haul manure, the length of time required would be determined by the changes in manure-hauling behavior. On the other hand if the objective was to help the boy learn the importance of keeping at a somewhat uncongenial task, it might well be that he would need to be kept at it longer. Perhaps even after the manure had all been hauled there would need to be other such tasks set. Still further the teacher's objective might have been to help the boy—supposing one not familiar with farm work—learn what farming involves in the way of real work. This would in turn condition the amount of manure to be hauled.

Or again the situation might be such as was described to me once by the instructor in charge of farm practice in this college. He put a boy to work loading manure from the wrong side of a wagon on a windy day. His purpose here was that of testing quite as much as teaching, but with some hope of the latter. He was interested to see if the boy would adjust appropriately, to the situation, and perhaps to use the situation to help him take advantage of natural forces rather than struggle against them.

Since 1927 Dr. Kruse has been head of the department of Rural Education at Cornell University, where his teaching activities are in the field of educational psychology. His experience includes high school principalship at Stanwood, Iowa; superintendent of schools, Mapleton, Iowa; instructorship in education at University of Washington; and assistant professor of education at Cornell University. He received his graduate training in education at the University of Washington and at Columbia University. This article is one of a series of three statements by Dr. Kruse dealing with the instructor's job.—A. K. G.

Without doubt in much of our vocational education—so called—the objectives cease to be educational in the sense here described and become merely industrial or agricultural. This is true at the university level as well as below. Many a student in economics, for example, has been kept at columns of figures long after all educational value has ceased. In our rather uncritical acceptance of the fundamentally sound principle of learning by doing, there is grave danger on the part of us teachers of attaching value to the doing in itself without careful scrutiny as to its fitness to ends to be achieved.

Method in Teaching

We hear a great deal these days of methods of teaching; methods of teaching reading, sewing, animal husbandry, or whatever you will. We are told about the lecture method and usually that it is very ineffective; the laboratory method, the discussion method, the project method. It is not our purpose to examine each of these with a view to noting advantages and disadvantages. That would go beyond our purpose, and furthermore it would be impossible without setting up specific situations in terms of pupils, environing situation, available tools, and objectives. It is our purpose to suggest a distinction between *method in* teaching and *methods of* teaching, and to stress the basic importance of the former.

A builder laying out the ground plan of a house to be built must have method in his procedure; that is a plan of work. His particular way of setting the corner markers and indicating thickness of foundation may be different from that of another builder. But he must have method, system, plan in his procedure. Hamlet had "method in his madness." The form it took was his own.

So also must the teacher have method, plan, system in his work of changing the behavior of the learner. Method in teaching as in other forms of production appears to involve three major factors:

1. Clearness of objectives.
2. Knowledge of raw materials to be worked upon.
3. Knowledge of and skill in use of tools appropriate to the situation.

The carpenter will not be effective unless he knows what it is he is to build. This is so obvious as to sound absurd in the stating. Likewise to say that he must know wood and other materials he uses is obvious. And that he needs to know tools appropriate to particular purposes and have skill in their use is accepted without question.

It will probably be granted that it is quite as important that the teacher know what it is he is undertaking to do, the raw materials on which he works, and the tools suitable to his purpose. But is it as sure that he does in any given case? If you should ask a carpenter at work what he is doing he would be able to reply without hesitation, and commonly would in terms of the product, whether chair, or garage, or house.

If you ask a teacher what he is doing, his most likely answer is in terms of the tools he is employing. He very probably will say he is teaching French, or history, or poultry, as the case may be. This would be as if the carpenter replied that he is using hammer, saw, and plane. The teacher rarely replies with a statement as specific as that he is undertaking to have boys learn to cut rafters for a chicken house; or learn to co-operate in work or play; or learn what factors are important in the location of large industrial centers.

In teaching we appear to have profound faith that if we use given tools in the way of subjects of study on given raw materials, the pupils in our charge, somehow the product will come out as it should even tho we think of it only vaguely as "education," or perhaps somewhat more specifically as art education or agricultural education.

The proposition here urged is that the teacher, to be effective, must proceed according to plan; that a teaching plan involves clarity as to objectives in terms of changes to be effected in the behavior of pupils; that it involves a knowledge of the raw materials to be worked upon, to be changed, namely his pupils; and that it further requires rich knowledge of and skill in the use of appropriate tools. One teacher may use Latin and another the gasoline engine depending on his objectives and the pupils they happen to be working with.

It will be our purpose in the articles to follow to undertake a brief examination of the nature of the raw materials with which the teacher works, namely human beings.

The Future Farmers of America is designed to recognize and encourage the natural instincts and tendencies of boys to organize themselves into gangs or groups and put enthusiasm and pleasure into their work and play.—Henry C. Groseclose, Executive Secretary, Future Farmers of America.

Exhibits in Vocational Agriculture

SHERMAN DICKINSON, Teacher Trainer, Missouri

[Editor's Note: This article is at least timely. We tried to get someone else to write it, but without success. We hope that the following suggestions may be helpful in exhibit planning.]

IT IS well known that exhibits and demonstrations of various sorts are one of the best means of securing public interest and of acquainting a large group of people with any particular activity.

The growth of the various community, county, state, national, and international fairs (really exhibits on a large scale) is evidence enough of the value which is placed upon education of this sort. As a means of education primarily, as well as for promotion and advertising, the exhibit is extremely important. It is, fundamentally, a means of visualizing, by the use of real objects, pictures, and charts, the results which have been accomplished in the field.

The teacher of agriculture and the county agent should make it their business to learn how to put up an attractive exhibit and conduct a convincing demonstration. Much help can be secured by visiting county and state fairs and taking note of the way experts have worked things out. One should always be on the alert for new ideas in decoration and arrangement. It is with the idea of furnishing a basis for study and of calling attention to some fundamental principles in exhibiting, that the following discussion has been written.

Planning

Any complicated or important piece of work, if it is to be successful, must be based upon a carefully thought out plan. This is particularly true of an exhibit of agricultural products or of school work. The variety is so great that often one is at a loss to know how to proceed to make an attractive and unified presentation.

There are a few basic principles to be kept in mind when planning an exhibit. It is best to have the ideal in mind and approach it as nearly as possible. The following factors should be considered when planning for an exhibit: Location, extent or size, length of time to remain, character of material to be displayed, whether or not material is to be returned, character of the audience, and whether or not there is to be an attendant. These factors will be discussed in the following paragraphs.

Location: It will make a difference in the planning of an exhibit if it is to be located in the interior of a building, in a tent, or in the open. Protection from the elements will be the most important thing to consider in this case. The exhibit may have a four sided location; i. e., so arranged that it may be viewed from all directions. Its planning in this case will be much different than tho it were placed against a wall or background so that it could be seen from the front only. The former situation is usually the more difficult to arrange. The location in relation to level is also an important one to consider. If the exhibit is to be above or below the normal eye level, there must be something to attract the eye and to lead the vision to the exhibit. Signs, colors, arrows, and sound are among the means that may be used for this purpose. The prominence of the location is an important point to plan for. The number of people who will naturally pass the spot is of no more importance than the kind of people. The situation should be studied, and a location selected if possible that will be in the path of the kind of people to which one wishes the exhibit to appeal.

Extent or Size: It is important to know at the outset just how much space is to be allowed for the exhibit. If the amount is unlimited, it is just as necessary to decide upon how much is to be used. The amount of exhibit material to be used, the amount of shelving or table space, the size of signs and trimming are all governed to some extent by the amount of space to be occupied.

Most agricultural or school exhibits will require considerable space, unless confined to a single and limited phase of the work. When wall space is available in addition to tables or shelves, it is possible to succeed with less floor space.

Length of Time Exhibit to Remain: The main consideration so far as the length of time the exhibit is to be in place is the character of the materials. The perishability of parts of the exhibit must be kept in mind. Nothing detracts so much from the attractiveness of an exhibit as a number of wilted discolored, decayed, or otherwise damaged specimens. If perishable materials are used, arrangements must be made either to discard them or to replace them when they become unattractive. Where exhibitions are to extend thru a considerable length of time, it is desirable to use some means of preserving the perishable materials. This may be accomplished in several ways, tho principally by the use of various solutions, such as alcohol and formalin.

Character of Material to Be Displayed: In planning the arrangement of an exhibit, one of the first things to know is what kind of material will make up the exhibit. If it is to be an exhibit showing the work of the primary grades of a school system, it will be necessary to use an entirely different arrangement than tho the exhibit were for the purpose of displaying the products of a garden club. More wall space would be necessary for the former purpose and more means of display because of the greater variety of materials which might be expected. If the material is of a fairly uniform nature, it will be necessary to provide some means of relieving the monotony, of attracting attention, and of making the important features stand out prominently.

Exhibit Material to Be Returned: The material which is used in making up an exhibit is frequently loaned for this purpose and must be returned to the owner. It is important in this case that a careful record be kept so that there will be no doubt regarding the return of the loaned articles. If it is not possible or advisable to label each article, a careful description should be taken and recorded with the name of the owner. Unpleasant experiences and serious difficulties often arise due to failure to return loaned material.

Kind of Audience: In planning an exhibit it is necessary to have in mind the kind of an audience which will see it. If the persons composing the audience are likely to have similar interests, it will be an easier matter to plan an appeal than if the audience is composed of people of many and diverse interests. In either case, however, an attempt should be made to analyze the interests and to so plan the exhibit that these interests will be appealed to. If it is desired to appeal only to a certain group in the possible audience, then all factors should lead to claiming the interest of this particular group.

Attendant or "Explainer": Most exhibits should be planned with the idea that they will be self-explanatory. This, however, is not always possible or desirable. Where promotion or education is the primary purpose, it is usually best to have some person with the exhibit who will act as a guide in its interpretation and who can give certain facts or figures which could not well be a part of the exhibit. Even in this case, however, the exhibit should be planned in such a way that the casual observer will see something to

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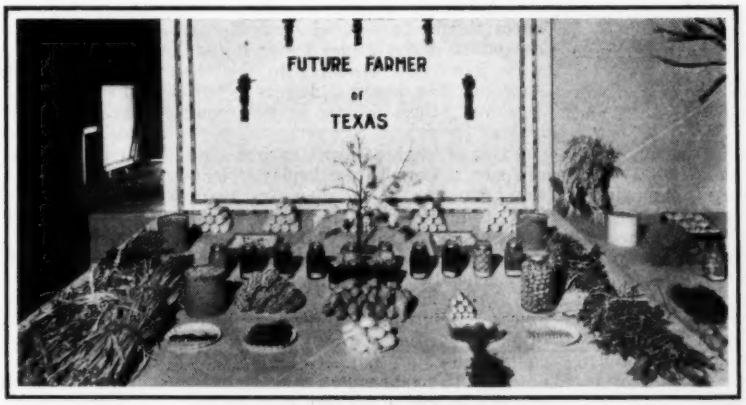


Exhibit of Texas Vocational Student

remember or to attract him to stop, look, and maybe listen. As a means to this end signs must be made and used in the proper way. They should be printed neatly and legibly and give their information in the briefest possible manner. They should be placed in such a way as to serve their purpose without detracting from the general appearance of the display. Small signs printed in black on white cardboard are usually more satisfactory than the more ornate kind. A large sign for the whole exhibit should have a prominent position and should state clearly what the exhibit is.

Collection of Material

When to Collect: The nature of the exhibit will govern to some extent the time that the collection of material should begin. A safe rule, tho a general one, is to begin collecting just as soon as possible, other factors considered. The less perishable materials may be gathered first, labeled if necessary, and stored until ready to place, leaving more time at the last for collecting that material which will not keep in storage. The location of the material and how to get it should be worked out long before the actual collection. Persons who are likely to conduct exhibits should be constantly looking for possible material.

Methods of Collection: There are two methods used in gathering exhibit material. One is to have the material brought in to a central point by the contributors; the other is for the person responsible to make the rounds and collect it. In practice, the two methods are usually united. The start is made with the first method, but in order to complete the exhibit, the second must be resorted to. In case the material is to be returned, it is well at this time to make very careful records of ownership. Some exhibit managers go to the extent of giving a receipt for the material loaned.

Source: The source of material varies, depending upon the character of the exhibit. If a school exhibit, the best source is of course the teachers. If an agricultural exhibit, the farmers, boys in agriculture classes, and county agents are the best sources.

Arrangement of Exhibits

In arranging an exhibit there are a few principles to be kept in mind. These principles, so far as the writer is aware, have not appeared in print. By a careful study of what are generally recognized as "good" exhibits, however, these principles may be discovered. They may be expressed by the following statements:

1. The exhibit should have a definite aim.
2. The exhibit should be attractive.
3. The exhibit should have unity and a central theme.
4. The exhibit should be convincing and lead to action or thought.

The actual "setting up" of an exhibit, following the collection of the materials, requires a great deal of thought and work. One should plan to secure the results suggested in the principles stated above. This requires a careful attention to details and a large amount of ingenuity and resourcefulness. The following suggestions should prove helpful to anyone who may have the task of arranging any sort of exhibit.

1. The "background" is one of the first matters to be considered. It is the setting for the exhibit and has much to do with its attractiveness. Rough boards, soiled walls, and open spaces must be hidden in some way. Cheesecloth is one of the best materials available for background work as it is inexpensive, procurable in many colors and easily handled. Common burlap may be secured in different shades, and while it is more expensive than cheesecloth, it produces a more substantial effect. It is used as a flat wall covering and in panel effects. Wrapping paper, leaves, grasses, and other materials are sometimes used as backgrounds. The principle points to consider are economy, permanence, ease of arrangement, and color effects.

2. Orderliness is important in arranging an exhibit. Some form of classification is necessary to aid the spectator in viewing the exhibit. In a garden display, for example, one would expect to find the root crops in one group, the leaf crops in another, the fruits in another, and so on. An exception to this style of arrangement may be made for decorative purposes. Using the same example, a very large pumpkin or watermelon might be placed on each side of the entrance; ears of corn might be used as edging on the tables, boxes of tomatoes might be placed at equal distances upon the shelving around the booth. The general rule of orderliness combined with symmetry, however, is emphasized by this exception.

3. There are two ways of arranging the shelving: One is to use the ordinary horizontal shelves, arranging them in tiers one above the other. For displaying preserved fruit and similar material, the shelves need only be wide enough to show one row. For miscellaneous material, a satisfactory arrangement is to have the shelving wider at the bottom, becoming narrower each successive shelf. Another type of shelving is that built on an incline. This type is desirable for the display of flat material which must be spread out to be properly shown. Student notebooks, small shop projects, shallow baskets or individual specimens of fruit or vegetables may be placed on inclined shelving. This arrangement provides more space and increases the visibility of the display.

4. A mass of material or a wide variety of material does not necessarily make a good exhibit, even tho well arranged. Quality of exhibits is more important than quantity. Too much variety may detract from the important points it is desired to emphasize.

5. While the most of the decorative effect should be secured thru the arrangement of the display material itself, it is frequently desirable to use the American flag, bunting, flowers or banners and other insignia of the group making the exhibit.

Exhibits differ so greatly as to amount of space, material to be displayed, location, character of audience, and many other conditions, that it is impossible in a discussion of this sort to give complete directions for their planning and arrangement. The best preparation for the work of making exhibits is practice and a careful and frequent study of displays at the various community, county, and state fairs. Taking careful note of both good results and bad effects, one will be able in his own work to use the good and avoid the bad.

Talk Turkey at Colorado Evening School

R. V. BURKHOLDER
Instructor of Vocational Agriculture,
Wiley, Colorado

THE Wiley High School, co-operating with the Colorado Departments for Vocational Education, sponsored an evening class for adult farmers in the enterprise of turkey production. This class was held from January 6 to January 12, as this is the slack season of farm labor.

Wiley is a small rural town whose livelihood is entirely dependent upon the rich farming district which surrounds the town. Turkey production ranks fifth in importance as a farm enterprise in the Wiley community. It brings nearly $100,000 into the locality each year, which is nearly one-half as much as the value of the alfalfa produced, which is by far our most important crop. This fact together with the difficulty of obtaining reliable printed information to aid turkey growers resulted in the selection of the subject.

The publicity methods consisted of several articles in the community newspapers, personal calls, telephone calls, public announcements, and form letters. Three hundred form letters were mailed to producers who were active members of the strong local co-operative marketing associations. Later one hundred additional follow-up form letters were sent. A publicity stunt which aroused considerable interest was the taking of about forty slides of the best flock of turkeys in the locality. These slides were shown during the meetings.

Ten meetings in all were held at which subjects of interest to turkey breeders were discussed. The total experience of the breeders present amounted to perhaps several hundred years. By free discussion, every one was enabled to have the advantage of this experience. Many problems were solved and many interesting facts brought to light. Some of the topics discussed were as follows: Outlook of the Industry in this Locality, Breeds of Turkeys, Selection of Breeding Stock, Feeding and Caring for Breeding Stock, Increasing Fertility and Hatchability, Incubating Turkey Eggs, Preventing Disease, Controlling Parasites, Feeding Young Stock, Preventing Crooked Breasts, Killing and Dressing, Marketing, Cost Studies of Raising Turkeys, Theft Prevention, and the like.

The attendance averaged twenty-six, which was good considering the cold weather. The temperature was below zero on more than half of the evenings on which meetings were held. In spite of adverse weather conditions three women made a record of perfect attendance. Some who attended regularly came a distance of sixteen miles. Twenty-four people who attended five or more meetings were presented with certificates showing that they had satisfactorily completed the course.

Plans for an effective follow-up program were perfected in the following manner: Each member of the class expressed his desire to attempt certain improved practices resulting from the jobs studied at the school. The instructor has these intended improved practices on file in his office and will base his follow-up work on the material filed concerning each member of the evening class.

Future Farmers of America

Ceres F. F. A. Chapter Designs Novel Emblem

THE Ceres Future Farmers of America Chapter has prepared a Future Farmer emblem that is worthy of passing on to other chapters of the state. This emblem was prepared by Walter Gruenig, one of the Future Farmer members.

At the request of this office, Mr. R. M. Freeman, agricultural teacher of the Ceres High School, has forwarded the following description and directions as to the construction of this emblem:

"The Ceres Future Farmer emblem is 26 inches in diameter and is mounted upon a base of three-ply wood, strongly braced with glued wood strips. A sketch of the official F. F. A. design must first be made and traced upon the base with carbon paper. The emblem is well fitted for any color scheme and this feature provides one of the most interesting phases of the job. Contrasting colors must be used to effectively bring out the design. We have made two of these emblems, one the work of 43 different boys, and the other entirely the work of one student. I would prefer to have one boy do the whole job as the difference in the ability of different boys is readily seen in the finished emblem.

"The design which appeals to us best was made with charcoal as the starchy part of the corn kernels, poultry grit and bonemeal as the embryo, and pearled barley as the 'highlights' on the shoulders and sides of the kernels. The words 'Vocational Agriculture' are made of cabbage seeds outlined with pearled barley, with white clover as a background. The letters F. F. A. are made with white clover with the periods of Hungarian vetch and set into a background of polished rice. The cloud above the head of the owl was made with pearled barley. The sun is made with yellow flint corn with the tips removed. The sun's rays are outlined with red milo. Our best owl was made with dark colored poultry grit with pigweed, alsike clover, cabbage, and turnip seeds used to make the wing and feather markings. The eyes are made with single lentil seeds with pearled barley surrounding them. The beak is a single cucumber seed. The feet of the owl are made with pigweed seed. The share of the plow is made up of a conglomerate mass of seeds and is capable of great diversification in its makeup.

"In mounting the seeds and products a thin layer of liquid glue is brushed on and the seeds are sifted evenly on the glue. Only a few square inches of glue should be used at one time or it will dry out. Individual seeds for straight line work are dropped into place and then oriented with any sharp instrument. After the design is finished and dry it should be sprayed with lacquer or shellac to hold the particles together as well as to give luster to the completed job. We use an ordinary fly sprayer for this job and found it highly successful.

"I find that the students are definitely interested in such an addition to the classroom decorations and make willing volunteers for this work. We will be glad to furnish a copy of our design to any instructors who are interested."

Roy Future Farmers Active

WAYNE W. ADAMS,
Teacher of Agriculture,
Roy, New Mex co

THE Future Farmer Chapter of Roy, New Mexico, is a live organization. Enthusiasm, co-operation, and interest are stepping stones upon which they are building a successful work.

Their F. F. A. program this year includes management of the livestock division in the local community fair; the display of class exhibits at two different fairs; a father and son banquet; development of a stock judging team; two F. F. A. meetings a month; one assembly program for the high school; one basketball game; a program for P. T. A.; and a camping and fishing trip near the end of the school term.

Last year the class built their own classroom and shop. This building, 25 x 50 in size, meets the state requirements, and is a piece of work of which the boys are proud.

This year the class built and equipped a large concrete forge in one corner of the shop. The F. F. boys did practically all of the work of constructing balconies in the high school gymnasium, due to a lack of funds for carpenters.

The field trips made by the class this year have consisted of judging all classes of animals, castrating pigs and calves, terracing land, selecting seed corn, culling flocks of poultry, caponizing, and many other minor jobs. The next large job to be taken up by the class is the advertising, managing, and conducting of a community poultry show.

The Illinois Chapter of the Future Famers of America presented a program before the Illinois State Farmers Institute at Galesburg on February 18. Homer Edwards, president of the Illinois Chapter, spoke on "What a F. F. A. Chapter Means to a Local Community." Edwin Johnson, American farmer from Illinois, spoke on "The Organization and Objectives of the F. F. A." Randall Hart, editor of the state F. F. A. News Letter, presided.

The Federal Board for Vocational Education is planning to publish a bulletin on "Activities of the F. F. A."

Deer Lodge Chapter Sponsors Meet

A. W. JOHNSON,
Instructor in Vocational Agriculture,
Deer Lodge, Montana

ON MAY 9 and 10 the Future Farmers of Powell County High School were hosts to the F. F. A. departments of Whitehall, Dillon, and Missoula. Judging contests in livestock, grain, poultry, potatoes, and farm shop were held. Athletic contests concluded the meet.

Eight ranches were visited on the first day where classes of Rambouillets, Herefords, Duroc Jerseys, Guernseys, Holsteins, and Hampshire sheep were judged.

A tour visiting the following places was greatly enjoyed: Deer Lodge Farms, Williams and Pauly ranch, Kohrs and Bielenberg ranch, Galen Dairy ranch, and Mt. Hagen sheep ranch, and a trip thru the state penitentiary.

In addition to these events there was an indoor swimming meet, baseball games, track events, a rope-pulling contest, and an Ag. Club dance. Each department entered 20 contestants. First place in the meet was won by the Powell County Future Farmers.

The meet was successful in every respect and this success was due to the splendid co-operation of the people in the community and those participating. I sincerely believe this kind of meet has a great educational value for the boys in vocational agriculture.

In a recent drive on community pests, members of the F. F. A Chapter at Antioch, Illinois, recently destroyed 3,462 sparrows, 307 mice, 128 rabbits, 93 rats, 8 woodchucks, 4 crows, and 2 hawks. Basing their claims on government statistics, as to the damage done by these pests, the boys claim a saving to the community of $12,800 as a result of this campaign.

Let every person in your neighborhood know that the F. F. A. is a live organization of live boys.

Aim to keep the scholarship record of F. F. A. boys above the average for the school.

A good F. F. A. slogan: A thrift bank in every chapter.

F. F. A's.—Try to beat your dads at farm work.

Take an active part in all F. F. A. activities.

Every F. F. A. boy should try to win the American Farmer degree.

The F. F. A. develops rural leadership within the coming generation.

Evening Schools

Farm Organization Outgrowth of Evening Class

R. L. AMSBERRY,
Superintendent and Vocational Agricultural Instructor, Oneida, Iowa

THE headlines of one of last night's state newspapers read: "First Regional Farm Board Livestock Co-Op in the U. S. Is Organized." The Oneida Reload Association is a member of that organization and has a member on its board.

Forty-one farmers and 21 farm women who had successfully completed evening courses in "Hog Raising and Marketing," and "Homemaking," respectively, were given their diplomas at the conclusion of the evening schools this year. The home economics instructor of the local school conducted the women's classes. These men and women met each Wednesday night for 12 weeks at the Oneida school, which is the center of the activities of a little farm community of 20 sections. The classes opened the first week in December (1929) and consisted of discussions led by the instructors, talks by specialists, followed by open forums.

The night school program is not new to these men and women. Similar classes were held last year. All of the men who graduated last year attended again this year and brought their neighbors with them. The total attendance in the men's classes this year was 595, with an average attendance of over 49 for each of the 12 meetings. The average attendance for the dairy school last year was 21.

Each member of the class marketed more than 67 hogs last year. The average weight for the hogs was 212.2 pounds. The men have planned three field trips during the summer.

Members of the class have signified that they will carry out the following intentions:

Fifty percent will plan for March farrowing of pigs, 30 percent for April, and 20 percent for May; 50 percent will sell on the September and October markets; 20 percent have joined the ton-litter contest for the members; 50 percent will flush their sows before breeding time; 58 percent will use the McLean County system of hog sanitation; 60 percent will farrow pigs in a central hog house; 100 percent will thoroly clean and disinfect farrowing pens and 64 percent will self-feed hogs.

Thirty percent of the members will plant five or more acres of corn on their own farms in the corn yield contest; 86 percent will use purebred sires; 20 percent will use purebred dams; 80 percent will feed a high protein concentrate during the gestation period that they might raise stronger pigs; 100 percent will have pasture available for their hogs, and 66 percent of the pasture will be legumes.

One hundred percent of the members want an evening school and 80 percent desire that it begin in October; 100 percent want to study "Soils and Legumes;" 58 percent will keep complete records and file them for use in the school; and 100 percent were in favor of organizing the Oneida Reload Association.

Oneida (Iowa) Farmers Are 100 Percent for Evening Classes

Results From Poultry Evening School

W. S. WHITE,
Teacher of Vocational Agriculture, Wadley, Alabama

THE activities and plans of the vocational department at the Wadley High School included two adult evening classes during the year 1929–30.

After compiling and analyzing the farm surveys in three communities it was found that poultry was very much needed to round out a fair farm program of work on each farm.

Personal visits by the teacher were made to farmers aided by a well known citizen of that community. The plans of the proposed school were discussed and they were asked to attend the organization meeting held at a certain date. News articles, posters, and announcements were made in the schools and the churches of the respective communities.

Two communities, each five miles from the agricultural department, were selected for evening class centers. The classes were held on Tuesday and Thursday at 6:30 p. m. each week for 12 nights. Men and women, both young and old, came out to the local church for this classwork. There they found good lights and a warm well ventilated room. Three seasonal meetings were held later in the year at each school. Class discussions and questions guided by the agriculture teacher on the particular job announced previously was the method used in teaching each night.

Thirty-five farmers have constructed 40 brooder houses and have ordered 20,000 chicks, some as winter broilers and the others to be reared for fall layers. In addition, some sixteen laying houses are in the process of construction. These activities are being done under the supervision of the agriculture teacher.

The education of the present and prospective farmer is the most effective method whereby the troubles of agriculture may be alleviated.

Oneida (Iowa) Farm Women Bring Their Husbands to Evening Classes

Teaching Without Telling

RUFUS D. PULLIAM,
Teacher of Vocational Agriculture,
Barrow County, Georgia

EVENING classes in agriculture for us farmers are helping this community to grow more stuff on fewer acres, Mr. John McEver, a farmer of Cook's community, Barrow County, told me on a follow-up visit to his farm the other day.

On February 24, I organized an evening class in corn and cotton growing for adult farmers in Cook's community. We had a series of ten meetings lasting from 7:45 p. m. until 8:45 p. m. Seventy-one farmers were enrolled in this class; the average attendance was 28, and 56 men attended five or more meetings.

The jobs taken up in this class were not decided upon without a great deal of consideration. I made a survey of the agriculture and actual practices of corn growing in the community. I discussed the farm problems with the farmers individually and personally, and then chose those jobs that were the biggest problems to the farmers, thereby meeting the needs of the group.

For this class, (1) fertilizing corn, (2) procuring corn seed, (3) fertilizing cotton, and (4) procuring cotton seed were chosen. Later on in the spring the class took up: (1) spacing corn, (2) spacing cotton, and, (3) controlling the boll weevil. The course, therefore, really consisted of seven problems.

I did not attempt to tell the farmers what to do or how to do it, but presented actual facts from the best and latest information to be had. I got both local and experiment station facts, then let the farmers make their own decisions. At all times our teaching units were real problems.

After deciding upon the jobs to take up I collected the latest data from the various experiment stations, being careful to get results from tests that were from conditions as near those of the community as possible; that is, same soil types, climatic conditions, etc. Then I organized this material so that comparison and contrasts could be made with the end in view of solving these problems. The facts I obtained were developed around: (1) the yield from different practices, (2) the increased yield, (3) the value of the increased yield, (4) cost of the treatment, and, (5) the net returns in dollars and cents.

From a consideration of all the facts in relation to these factors, along with the actual experience of the farmers they are able to make their own decisions as to the best practices to follow on each job.

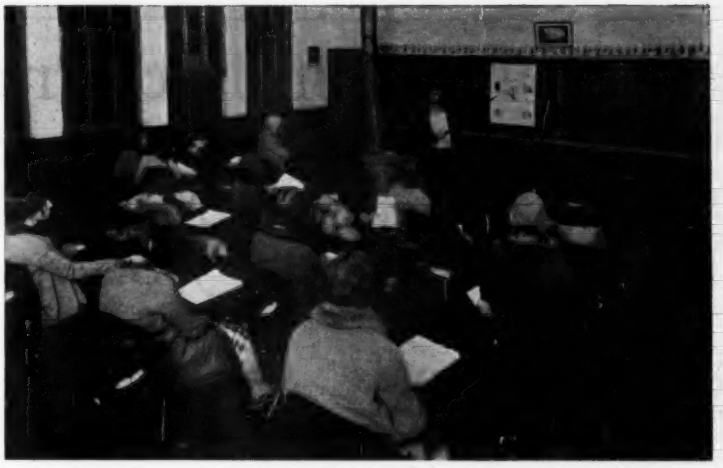
I had three objectives in using this procedure: (1) I find it would be the most effective, (2) it makes every farmer feel that it was his class, and, (3) it presents the material in such a way that in time the farmer will be able to determine for himself the factors to be considered in making a decision on any other farm job like these.

As an example: in teaching the job "fertilizing corn," first the job was analyzed and divided into the following units: (1) what are the best amounts of each plant food element (phosphoric acid, ammonia, and potash), to use? (2) What are the best sources as carriers of each element? (3) What is the best time to apply each? These units were organized as mentioned in a preceding paragraph, organized about facts, and carried thru to the net returns in dollars and cents.

After the class was over I made a mimeographed sheet of all the conclusions or decisions reached during the class and gave one to each member of the class. At the same time I got the intended practices for 1930 on the jobs studied in the class. I used this also as personal supervision and instruction; that is, if a man had not made the right decision, I tried to show him the advantage of the so-called best practice.

I have visited 55 farmers since the class was over and found that all of them are changing their practices in corn growing.

An evening class for women was taught at the same time by Miss Nettie Ola Tolbert, home economics teacher at Statham. Twenty-eight women (wives of the farmers), were enrolled and there was good attendance at every meeting. The women studied food, clothing, and child care problems as applied to the farm women.



Boone County (Georgia) Women Have Contributed Much to the Success of Men's Classes

Successful Evening Class Taught by First Year Teacher

Seasonable Evening Schools

L. B. CONNELLY, Jr.,
Agricultural Instructor, Lebanon, Virginia

BECAUSE of the interest in the growth of burley tobacco in Russell County, 126 farmers were members of evening classes to study this new enterprise. The evening classes were organized at the request of the farmers and were held on a seasonal basis. One of the first classes to be organized was the Elk Garden evening class, which is the large beef cattle farm owned by former Governor Stuart. Twenty-two of the tenants were called together to study the "making of tobacco plant beds." After this lesson it was agreed that other units would be arranged for as the need arose. The demand for this evening school grew out of a discussion between the adults and one of the regular vocational agriculture pupils.

Five evening schools were organized in the county at community centers. Tobacco growing formed the main part of these courses in every case but in some of the groups dairying was also taught. Dairying is a new enterprise in the county, milk routes have recently been established to haul the milk to the Abingdon Condensery. Farm women attended the dairy meetings.

In most cases the class membership was made up of adult farmers and their tenants. In the Honaker community about twenty of the regularly enrolled agriculture pupils attended the adult meetings. Newspaper notices, hand bills, and personal invitations were given to men thought to be interested in the new enterprises in the county. Meetings were held at central places at set times, usually in the evenings. At these meetings the instructor filled out the jobs to be taught. These were actual problems.

Supervised Practice

Vocational Agriculture Boys Fatten Fifty-One Baby Beeves

J. C. DYKES, Professor of Agricultural Education, Texas A. and M. College

ON NOVEMBER 9, 1929, twenty-three members of the vocational agricultural classes in the city of Colorado, Mitchell County, Texas, under the supervision of their teacher, Doyle Williams, put 51 baby beeves on feed. At the same time club boys, under the supervision of County Agent W. S. Foster, placed seven calves on feed and adult farmers in the county put 12 on feed.

Judging Calves for Finals

Altho a large number of feeder calves are raised in Mitchell County each year, only four calves had ever been fed out locally before the project started. The entire project was a part of the Feeder-Breeder movement that is playing a prominent part in reducing the cotton acreage and putting Texas agriculture on a sound basis.

The business men of the city of Colorado put up cash prizes for the best net gains and for the best finished calves. The net gain prizes were for home rations using locally grown feeds. The Bewley Mills offered, in addition, a cash prize of $25 for the best gain made by a calf finished on a ready-mixed commercial feed. Due to the short feed crop in the county it was necessary for the boys to ship in three cars of milo and kafir heads from adjoining counties to complete the feeding period. This feed was exactly of the type grown in the county and was considered as locally grown feed in the net gain contest. The feed shipped in cost the boys $22 a ton plus $4 per ton freight and $4 a ton for grinding. Locally grown feed was priced at $20 a ton so this 50 percent increase in price of concentrates materially reduced the profits of the project.

During the first feeding period of 30 days each calf was fed four pounds of ground milo and one pound of cottonseed meal daily as concentrates with all the roughness in the form of bundled Hegari that the calf would eat. As the project progressed the pounds of concentrates were increased and that of roughness cut down so that during the fifth period (33 days) each calf was fed daily 10 to 12 pounds of milo and 2½ pounds of cottonseed meal, and about 8 pounds of bundled Hegari. Five of the vocational boys' calves were sold before the end of the 153-day feeding period to local butchers at good prices.

A fine Baby Beef Show was held on April 12, with 65 calves shown. That morning the boys weighed in their calves to determine the winners in the net gain contest (home-grown feeds). The winners were:

First, $20—Thomas Henderson; calf gained 458 pounds; initial weight, 447 pounds; selling weight, 905 pounds.

Second, $15—J. L. Hart; calf gained 420 pounds; initial weight, 560 pounds; selling weight, 980 pounds.

Third, $10—Charles E. Root; calf gained 413 pounds; initial weight, 512 pounds; selling weight, 925 pounds.

Fourth, $5—Arval Colson; calf gained 412 pounds; initial weight, 358 pounds; selling weight, 770 pounds.

In the afternoon the calves were judged for finish by Professor Ray Mowery of Texas Technological College, at Lubbock. The winners in the Best Finish Contest were:

First, $5, J. L. Galey; second, $4, William Green; third, $3, Harold Watson; fourth, $2, Roy Marsh; fifth, $1, Paul Thompson; sixth, ribbon, W. R. Powell.

In the Best Finish Contest the class was open to both locally and commercially fed calves.

Paul Thompson won the $25 award made by the Bewley Mills for the best net gain made by a commercially fed calf with 445 pounds for a total of 1,025 from an intial weight of 580 pounds.

A final tabulation of the results of feeding the 51 calves proved to the boys that they could profitably market their locally grown feed crops in the form of beef. Many of the boys are already planning to plant feed crops as minor projects and will market their feed as beef next winter. The calves showed an average profit of $6.63 over feed cost. This does not take into consideration the prize money nor the labor cost and interest on the investment. Yet the

(Continued on page 16)

Thomas Henderson's Prize Winner

Score Cards for Supervised Practice

SHERMAN DICKINSON, Professor Agricultural Education, Missouri

WITH the increased recognition given to the value of supervised practice, there has come an effort to formulate rating schemes for this work.

It is unquestionably desirable that we shall be able to measure, as objectively as possible, the quality of the project work of our students. As teachers, the principle advantage of good measuring sticks lies in the fact that such measurement will be a most helpful guide in directing the supervised practice programs of our students.

There is much difference of opinion as to the character and form of such a measuring device. The most commonly used form appears to be some sort of a score card. This should be quite satisfactory as it lends itself to definiteness, emphasis, and numerical rating.

There is little uniformity, however, in other aspects of the various rating plans proposed. Some plans are designed to measure projects; others to measure the whole supervised practice program. It is maintained by some teachers that there must be a score card for each project enterprise; by others that there must be at least three score cards, one each for livestock, crop, and maintenance projects.

It would seem desirable that some careful study be given to this matter and that there should be more uniformity of thought. The following rating schemes are presented with the idea in mind that they will stimulate thought along this line.

SECTION I—SCORE CARD FOR PRACTICE IN HOME PROJECTS

Major Project			Minor Project			Minor Project		
Enterprise	Perfect Score	Actual Score	Enterprise	Perfect Score	Actual Score	Enterprise	Perfect Score	Actual Score
5 A. COTTON	300		5 A. CORN	200		1 GILT	100	
Jobs to Be Scored			**Jobs to Be Scored**			**Jobs to Be Scored**		
1. Selecting variety	50		Selecting variety	20		Selecting breed	10	
2. Selecting land	10		Testing seed	50		Selecting individual	30	
3. Breaking land	15		Spacing	20		Sanitation	20	
4. Harrowing land	10		Field selecting seed	30		Construction self-feeder	15	
5. Securing seed	50		Storing	30				
6. Planting	15		Fumigating	30				
7. Spacing	25							
8. Field selecting seed	50							
9. Stapling & grading	50							
10. Preparing Exhibiting	25		Preparing & exhibiting	20		Preparing & exhibiting	25	
TOTALS	300			200			100	

SECTION II—SCORE FOR SUPERVISED PRACTICE OTHER THAN PROJECT

JOBS	Perfect Score	Actual Score	JOBS	Perfect Score	Actual Score
1. Terracing	50		11. Constructing lot gate	20	
2. Culling	30		12. Remodeling poultry house	25	
3. Caponizing	20		13. Calculating cost production of eggs, milk, butter, pork, and vegetables on home farm		
4. Testing cow for butterfat production	30		14. Judging dairy cattle	10	
5. Keeping production records for home flock	15		15. Judging hogs	10	
6. Keeping milk production and feed record on Dad's dairy herd	15		16. Judging poultry	10	
7. Take inventory of purebred poultry, dairy cows, hogs, cotton, and corn	15		17. Judging beef cattle	10	
8. Soldering	10		18. Judging sheep	10	
9. Sharpening chisel, knife, plant blade, bits, and axe	10		19. Judging horses	10	
10. Constructing concrete hog feeding floor	20		20. Working up S. P. work	60	

(Other score cards will be found on page 16)

Some Experiences With Farm Practice Programs

LAWRENCE BRADFORD, Kentucky

AFTER eight years of experience with farm-practice programs (called in former days, "projects") several interesting experiences have been revealed, but the thing that we have noticed most is development.

In the first place I believe that the failure of projects on the part of the students has been more due to the failure of the instructor to get a full appreciation of the value of the work than to any other reason. It has taken us a long time to get the vision of the value of the job. We have gone after it in a sort of an apologetic manner and have consequently gotten but little results. Our idea that an old hen and 10 chickens constituted a project failed to command the respect of the parent. It amounted to nothing and he knew it. Then as he made light of the proposition, the boy soon began to hold it in disregard if not in contempt. The programs were not large enough to command even a little respect.

Before the teacher lays his plans before the parent and son, he must have the plan in his own mind. He should have visualized what the boy should do in order to have a satisfactory farm-practice program.

Formerly we held to the idea that, like all other school matters, each boy's project program should be very much the same. Again we have learned better. A good program for a boy, who has five other brothers and whose father has but 50 acres of land is not at all satisfactory for the boy whose father has a large farm and no other children. One of the best practices I have ever had was the operation of an entire farm. The father was dead and the entire farm was taken over by the boy. Of course this type is not practical for either of the above cases. Let our maxim be, "Make the program as large as home conditions will permit." There is no need of uniformity, even tho we may need a required minimum.

I am now attempting to put my farm-practice programs on a basis that will leave the student with a thousand dollars earned and in the bank at the end of his school work. The parents like this idea, so do the bankers. They know it is worth while.

Again many of our failures have been caused by waiting until school was out to begin. This is too late. Our new system of beginning in the fall will secure much better results. Continuation projects will help eliminate failure. Practice programs are also individual programs. We must work with each student independently and one at a time. This takes a lot of time and patience and I fear that in the past we have neglected to do this as it must be done largely out of the class periods.

Some students fail to get lined up for the work with the best efforts that the teacher can put forth. This may be due to home conditions, or to the fact that he has no facilities for the work, or indifference. Or it may be that the teacher has not visualized the opportunities which the boy has. This group will be cut to the minimum when we have learned to properly select our

(Continued on page 16)

Farm Mechanics

Practical Shop Projects

G. S. JOHNSON,
Vocational Agriculture Instructor,
Corning, Iowa

IN BUILDING a course of study for any subject an instructor must know how much time to spend on each unit taught. An outline of the months in weeks with the main headings in shop work is all one needs.

I open my shop course with one week on rope which includes tying eight useful knots; making a long, short, and crown splice; whipping end of a rope; and ending with the boys making a rope halter. While on a project tour I visited one of my shop boys. A neighbor had broken a planter rope which ran thru a pulley. He came to the boy's farm seeking a new rope. The boy said he could splice the rope and he promptly demonstrated. The farmer said, "It's the first time I knew anyone to learn anything useful in school."

The second week the boys learn how to adjust a plane, sharpen plane bits, chisels, and work on old saw blades. Lectures and demonstrations of 20 to 30 minutes always precede the actual work and later on when the boys make things, they have to make drawings and estimate the price and amount of lumber needed. Drawing is very important for the boy learns to read blue prints and this saves the instructor much time if a boy can do this. We spend two weeks on drawing.

The boys were taught to put all tools back in the cases over the benches. These cases are 10 feet by 5 feet by 8 inches with heavy wire netting doors. These doors can be locked but we left them open all year. We never lost a tool and 27 boys were enrolled in farm shop work.

The third week the boys were taught how to use these tools in making bread boards and harness clamps.

The fourth week they made wagon jacks. Many of the boys brought lumber and rods from the farm. They received their first forge lesson on these projects.

The second month we made a concrete drive 8 x 30 feet, a fence around the football field and a football charging dummy. I found that the boys worked much better if one of their number was made foreman of the group. They worked best in groups of five or six and they would shift in the group. For instance only two boys could mix concrete at a time and the shift would work five minutes at a time. This way the work was not tiring and the boys had a lot of fun. I also learned which of the boys had leadership ability.

The third month the boys worked on soldering pails, alligator splices, glazing, forging chisels and punches, saw horses, seed corn racks, chicken feeders with galvanized bottoms, ladders, window screens, etc.

The fourth month was given to harness repair. However, the boys did quite a little outside work making saw horses for banquet tables and booths in the schoolhouse.

The second semester the boys were allowed to make larger projects. We turned out six wheelbarrows, in which they got a lot of forge work by making the iron braces. Some of the more advanced boys worked on an old Ford car, tightening connecting rods, soldering the radiator, cleaning out carbon, grinding valves, etc. The boys completed three large movable hog houses 7 x 18 feet. We built them in the shop, a local lumber firm furnished the material, and the boys received $10 for building them, the funds going into the local club treasury. The firm sold all three. Besides this we built two A-type hog-houses, a large hog feeder for a farmer, overhauled six mowing machines, two hay racks, a two-wheeled cart, a radio table, gates, and an electric motor.

What Are They Doing?

WATSON E. FOWLER,
Vocational Teacher
Traverse City, Michigan

DURING the month of February, 1930, a study was made to determine the present occupation of vocational agriculture students who have been enrolled in summer projects during the past nine years at Traverse City. The survey included a study of 84 students and produced the following data:

Students on farms	27
Teachers in rural schools	6
Those in vocations related to agriculture such as agriculture teachers, dairy workers, landscape gardeners, and those attending agricultural college	8
Those in vocations that are in no way related to agriculture or are attending other than agricultural colleges	33
Those not accounted for	8

From the first three items above, it will be noted that 41 students, or 48 percent, are in vocations very closely related to agriculture and rural life.

A similar survey of 1926 is of interest. At that time, 63 students had completed the agricultural course, and 33 of these were in occupations related to agriculture. This former survey includes 9 girls not counted in the survey of 1930.

Boys Like Large Projects

S. M. THORFINNSON,
Teacher of Agriculture,
Granville, North Dakota

FARM mechanics instruction in the Granville High School is given in a separate, or outside shop, 24 x 50 feet. About half of the time is devoted to farm carpentry, and the rest to rope work, soldering, glazing, concrete work, and machine repair and adjustment.

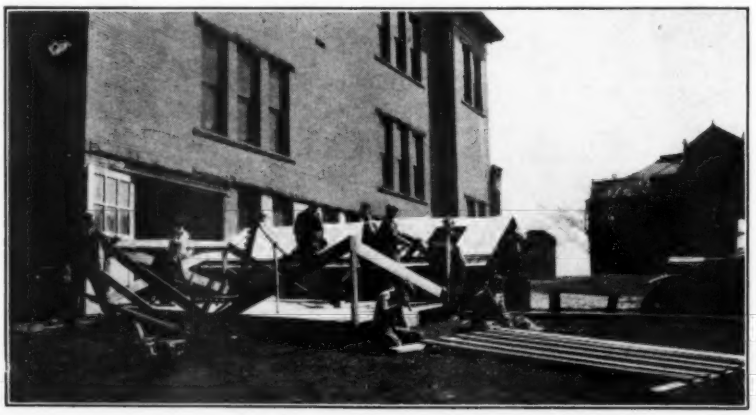
The boys take most interest in the large farm carpentry projects, such as building poultry houses, hay racks, self-feeders, wagon boxes, garages, etc. Our shop has large double doors, 10 feet high, so it is possible to build most of these in the shop and then haul them out when finished. A garage or brooder house involves the same principles of carpentry as a granary or a small barn. Work of this kind is similar to the work needed on the average farm, and furnishes an opportunity to learn the common tool skills, and the care of the tools used.

I feel that the students do a better grade of work on projects big enough to challenge their interest, and take far more pride in the finished product. Our largest group project so far is the school shop, a poured concrete structure 24 x 50 feet, 9 feet at the eaves. The shop class did every bit of the work from start to finish.

We have not done enough machine repair and adjusting to warrant any definite conclusions, but indications are that the work will be popular.

Differences in Ability

Teachers must of course be able to recognize differences in individuals in their capacity to think and act. Where a mere suggestion to one individual may stimulate intelligent thought and action, another may require much more specific directions before he can be expected to try his hand at the skill involved. Good teaching requires that each individual in the class be working somewhere near the limit of his ability to think and act, variable as these limits may be with different individuals.—L. B. Pollom.



Real Jobs in the Corning Farm Shop

Home Shop Projects

F. J. McDONALD,
Vocational Agriculture Instructor,
Lee, Maine

I HAVE developed what I call a home shop project. I require each boy in the farm mechanics classes to select an article, necessary at home, to be made in the school shop.

There are certain specifications which this project must meet. It must keep the boy occupied at least ten shop days, and be an object which requires a maximum number of skills. It must require cheap materials, preferably those that may be picked up about the farm.

At the beginning of the year the boys are told to start considering the project immediately. The requirements are explained to them and a tentative list of articles is given them. They then look about their farm, and, with the help of their parents, select an article that will add to the convenience of the farm work. In this way the boy and the parent are brought to observe the lack of convenient articles which are very easily made with a few tools.

After the project is selected the boy must make a working drawing, list a bill of material, get his material together, and lay out his work. If he has not already learned the skills required they are demonstrated to him by the instructor or another boy. He then practices those skills until he has mastered them enough to do a presentable job on his project.

Difficulties are encountered in this method as they are in every system. When a boy selects a project which seems necessary, but which does not come up to specifications, I let him carry it thru rather than discourage his initiative; but I show him the skills it lacks, and guide him in the selection of another project for the same year. Some boys are slower than others and do a better job, while other slow ones turn out a poor job. I judge the project more by watching the boy work than by the time it takes him to do the work.

Basis for Farm Shop Jobs

The sources of farm mechanics jobs and projects undoubtedly has an influence on the attitude and interest of the boy. Where a course is based largely on a series of skill exercises predetermined by the teacher and for which a formal job sheet has been prepared, little can be expected in the way of accomplishment except perhaps the acquisition of a limited number of operative skills.

On the other hand, if each boy with the assistance of the teacher works out a fairly definite program of mechanics work for the year based on the needs and opportunities of the boys' productive projects and the home farmstead, motivation of thinking and acquisition of skill probably will be automatically achieved. Such a program of work should, of course, be developed in the light of a thoro and well-directed check up of home farm equipment.—L. B. Pollom.

A project without records is much like a clock without hands—it may be going, but it tells nothing.

Southern Agriculturist Endorses Vocational Agriculture

THE April 1 issue of the *Southern Agriculturist* contained the following editorial comment on vocational agriculture:

FARMING IS MORE THAN A JOB

In the early days in America, farming was largely a job. Land was cheap and fertile. Insect pests were unknown. No marketing problem worried the farmer because he ate or wore most of what his farm produced. This same pioneer farmer did not expect to have good roads. His mail reached him once or twice a week. And a little one-roomed schoolhouse was good enough for his children.

Today farming is no longer a job. Land is high-priced. Fertility has been spent. The marketing of crops and livestock has become an acute problem. Goods roads are a necessity. Rural free delivery brings mail and newspapers daily. And a consolidated school, plus a strong high school with vocational instruction, becomes the ideal. Education, technical education, to meet the demands of modern rural life, is necessary.

This need of training to meet the present-day problems on the farm is centered in the rapid growth of departments of Vocational Agriculture in the rural schools. Today there are 1,468 white teachers of Vocational Agriculture and 457 Negro teachers of the same topic in the Southern states. These men not only have large classes of boys studying farming; but also, evening classes of farmers who are anxious to get help in the solving of their own pressing problems. During the present school year some 30,000 of these farmers are attending evening classes.

Besides the valuable instruction secured in the classroom and the training in project work at home, high school boys are learning to understand the value of leadership and co-operation. The little one-roomed schoolhouse could never make its pupils co-operative-minded; but these larger schools can. Not content with getting together large groups of boys studying agriculture, the teachers of Vocational Agriculture have developed a strong organization known as the Future Farmers of America. These young men, who are to be the future farmers of America, handle their own organization. The boys have meetings in their schools. They also have district, state, and national meetings. Last November, some 2,000 members of the Future Farmers of America, representing practically all the states in the Union, met at the Royal Show at Kansas City.

Agricultural education in rural high schools is undergoing a most decided change. Instead of the oldtime slavish use of text-books, teachers are making use of problems confronting the boys in their immediate neighborhoods. More and more the boys are expected to make use of what is at hand for the gaining of an education in farming. This change in educational methods is an outstanding feature of Vocational Agriculture today. It should pave the way for bigger and better things in the practical education of the farmer of the future.

Securing Shop Jobs

LEWIS STONE,
Vocational Agriculture Instructor,
Letcher, South Dakota

TO MOTIVATE and to teach farm mechanics it is necessary to use full-grown, man-sized projects. The very nature of this type of project creates intensive interest. Each teacher will, however, without my enumerating the reasons, recognize the difficulty of securing them in sufficient quantity. We use two methods here that have worked satisfactorily.

We personally solicit farmers. This method has brought us a great variety of projects, including all kinds of tool sharpening, harness repair, soldering, concrete work, and woodwork ranging from pig troughs to a small cattle barn.

We have secured the co-operation of the lumber companies and they supply us with many building projects such as hog crates, self-feeders, brooder houses, individual hog houses, and three-pen hog houses. We do the work without charge and in turn the lumberman charges only for the raw material. This combination has been beneficial to all parties concerned. It has supplied the shop with many good, practical projects and has furnished us many contacts with otherwise disinterested parties. In a small way, it has increased trade for the lumberman. It has given the farmers good, well-constructed buildings at a low cost.

Opportunities for motivation furnished by this scheme are excellent. A piece of work well and promptly done excites much favorable comment while carelessness brings adverse criticism. Thus social pressure aids one in establishing a high standard of accuracy, neatness, durability, and speed.

Think First—Then Do

The educational value of shop teaching is determined to a very considerable extent by the ability of the teacher to cause his boys to think thru and analyze the jobs to be attacked and set up a method of procedure.

While it is very likely beginners will require more specific direction, our aim should be to develop in the boy ability to think thru and analyze the job and set up his own method of procedure.

One of the problems of the mechanics teacher is to control the natural impulse of the boy to seize the hammer and saw and go to work often with a vague idea of what he is going to do and even more vague idea of how he is going to do it.—L. B. Pollom.

Encouraging Results

BEN C. EAD, Sandwich, Illinois

ONE of the most encouraging things that we have experienced yet in our teaching happened in January when Douglas Knight, a former student in Agriculture, with ten purebred Holsteins had the highest producing herd in Illinois. The average was 68.5 pounds which was higher than the Iowa, Wisconsin, Indiana, or Michigan record for that month. The highest cow produced 90 pounds of butterfat. He became interested in Holsteins while in school and in five years, starting with heifers, he has topped the state.

Why Every Student Taking Vocational Training in Agriculture Should Have a Bank Account

LEE GAITHER, Student of Agriculture, Mayslick, Kentucky

[This is the winning essay in the Kentucky contest]

CALVIN COOLIDGE has very fittingly said that the whole of what we call civilization is the difference between saving what we make today for use on the morrow and exhausting it at the time we receive it.

On the principle embodied in these words are founded our greatest fortunes as well as our more meager accumulations. Then it is apparent that the principle of deferring consumption known as saving is a most important lesson in life. It is well that the steps necessary to arrive at so important a situation as that of success be considered.

But first one should learn the real meaning of thrift, a form of saving. Saving is simply a process of using economic goods wisely. Saving or thrift implies neither stinginess nor wasteful spending, but it is consistent economy. It is a form of foresight and marks the difference between the wise and the foolish, the civilized and the savage.

Thrift reaps a harvest of advantages that are known only to the thrifty. Thrift enables one to make a wise investment, it rewards one with the means to buy the long dreamed of home or perhaps the ideal farm. By practicing thrift one is able to extend his education so that he may become a skilled worker.

Besides being a virtue in itself, thrift develops many kindred qualities. Out of thrift grows self-reliance, self-control, initiative, and a willingness to forego immediate consumption that there may be something to consume on the morrow.

In addition to being a necessary asset in business, thrift has a special significance in agriculture. The primary purpose of any business is to earn a profit. Especially is this desired in agriculture, as this industry has suffered a post-war deflation from which it has never fully recovered. With the idea of increasing their income many farmers have increased their crop yields, improved their livestock, or built up their soil, but either thru their inability to market properly or because they are unable to keep down expenses they have failed to make a profit thru the use of their improved methods of farming. To remedy the latter situation a man must have learned the lesson of thrift in his youth, for it is then that our ideals and character are molded. Farmers cannot buy all there is to buy and hope to succeed. Instead of spending hastily he must buy only those things that will pay reasonable dividend by their use.

Next to knowing how to spend money properly is the knowledge of how to save it. The farming industry at frequent intervals requires an outlay for supplies and livestock which may be bought on a credit term or paid for in cash. Because of the expense of collecting accounts merchants are compelled to charge very high interest rates on time purchases. The farmer not having the cash in the bank (the proper place for capital needed on short notice), must pay the high interest rates of the merchants, and as a result his real income is smaller than that of the man paying cash, tho both may have the same gross receipts and buy the same items. Another advantage of a bank account is that the farmer can take advantage of the low cash prices for real estate. Then, too, the farmer having a bank account has a feeling of security that lifts a load of worry from his mind.

Farm enterprises are subject to various risks such as adverse weather, diseases, and insects. A bad season often results in total failure. A bank account is of great help in this situation, as it enables the farmer to buy seed and fertilizer needed to grow the next crop.

What has been said of the farmer in general very aptly applies to the boy taking vocational agriculture. Now that every boy taking vocational agriculture is required to have a practice program, a bank account is needed by the boy in a greater degree than it is needed by one taking any other subject in our schools. With a bank account it is easy to put the practice program in operation as the necessary capital with which to buy animals, fertilizer, feed, and equipment is available. Even the boy lacking the convenient bank account will find it profitable to have one in his later practice work, for he can use it to advantage in increasing the size of his practice program, thereby increasing his income. Should the boy desire to extend his agricultural education he will find a bank account is of great help in meeting the necessary expenses.

It is evident, therefore, that a bank account is a very desirable asset to the boy taking vocational agriculture because it instills in him self-reliance, self-control, a sense of value and a willingness to forego consumption and it aids him directly in his practice work. Indirectly it builds the necessary character needed to overcome the obstacles that he will meet in this field of activity. Then it behooves every boy taking vocational agriculture to learn the lesson of thrift that he and his descendants may lift agriculture, both economically and intellectually, to the level of industrial work, that the economic freedom of the common man of the land may be established which will insure the maintenance of a prosperous, intelligent people as the enduring foundation of a great civilization.

Vocational Schools at State Fairs

A. P. DAVIDSON,
Professor of Agricultural Education,
Manhatton, Kansas

KANSAS vocational agriculture departments are fortunate as regards accessibility to agricultural expositions of state and national scope. There are four major fairs or shows easily accessible to departments centrally located in Kansas, and reasonably accessible to all departments in the state; namely, Kansas Free Fair, held at Topeka; Kansas State Fair at Hutchinson; the Wichita National Livestock Show at Wichita; and the American Royal at Kansas City.

The vocational leaders of the state have considered this accessibility to these great shows an asset, while some of the high school superintendents and principals have questioned the value of time spent in attendance at these shows.

The following is a brief description of the vocational school held at the State Fair at Hutchinson, 1929. The school was held on Monday in order to facilitate attendance and was confined to two phases of the vocational agricultural program; namely, animal production and farm mechanics. Arrangements were made with the fair board for admission to the fair and to afternoon and evening programs, and identification tags were issued vocational students and instructors. Twenty schools and approximately 350 vocational students were in attendance.

The morning session from 10 a. m. to 11:30 a. m. was given over to a discussion of farm machinery. Machines needed were made available thru the co-operation of farm implement exhibitors. A member of the agricultural engineering department of the Kansas State Agricultural College discussed the various machines from standpoints of function, operation, and care. At the close of each discussion an opportunity for questions was offered. The animal production school was scheduled from 12:30 until 2 p. m. This school was in charge of representatives from the dairy and animal husbandry departments of the agricultural college. Thru the co-operation of breeders exhibiting at the fair, outstanding animals from the different breeds were made available. This work was of a demonstration nature, setting forth the purpose and importance of selection, the points to keep in mind, and sound procedure in evaluating an animal.

A set of questions was built around the educational exhibits of the United States Department of Agriculture and the extension exhibit of the agricultural college. These questions were to be checked and noted by students at their convenience, and were to be used by the instructors upon resuming their class work.

The major part of the afternoon and all evening afforded opportunity to visit educational booths and to attend recreational features of the fair. The identi-

(Continued on page 16)

Summer Program of Work

MANY instructors say that the summer season is the busiest and most valuable period of the year in carrying out an effective and worthwhile vocational agriculture program. And no doubt it should be if the value of the supervisory phase of this program, particularly for the summer months, is to be demonstrated.

The following list of activities while not complete may be suggestive in some particulars in setting up a local program of work for the summer period. (Organizing the program upon a monthly rather than a topical basis might even be more desirable.)

A. Supervised Practice Work:
1. Visit every boy at two-week intervals or oftener if the occasion demands.
2. Visit evening school men and tactfully advise and encourage the use of improved practices.
3. Visit part-time students at regular intervals.

B. Improvement of Teaching:
1. Re-organize courses of study for coming year.
2. Attend special courses.
3. Read new material on education and teaching.
4. Review recent bulletins, results of experiments, etc.

C. Program of Work:
1. Prepare a definite program of work for the coming year.
2. Make a long time agriculture program for the community.
3. Co-operate with local farm organizations in carrying out a community program on swine, legumes, corn, etc.

D. Future Farmers of America:
1. Organize a local chapter if you have not already done so.
2. Conduct regular meetings.
3. Attend summer camp.
4. Make tours to outstanding farms, state fair, industrial plants, etc.
5. Prepare demonstration teams.
6. Train judging teams.
7. Arrange project tour.
8. Participate in contests, meetings, initiations, etc., with other chapters.

E. Physical Facilities for Teaching:
1. Order needed books, equipment, and supplies for shop and agriculture rooms.
2. Write for recent bulletins.
3. Prepare charts and other illustrative material.
4. Re-organize room and equipment.

F. Publicity:
1. Prepare exhibits for local fairs.
2. Write articles for local papers.
3. Prepare a news letter each month for vocational students.
4. Display exhibits, such as weeds, project results, etc., in store windows.

G. Enrollment:
1. Visit farm boys who have finished the eighth grade.
2. Visit out-of-school boys and interest them in vocational work.

H. Department Records:
1. Install filing case.
2. Initiate or revise a complete set of records.

I. Miscellaneous:
1. Supervise variety or fertilizer demonstration test plots.
2. Prepare an annual report of year's work for school board.
3. Visit other vocational departments.
4. Promote an evening school.
5. Take part in community activities.
6. Sponsor a local flower show.
7. Organize a weed identification contest.
8. Assist with junior cow test association.
9. Render such individual services as are requested.
10. Make tour of evening school men's farms, experiment stations, etc.
11. Prepare weed or rodent control demonstrations.

—From Iowa Monthly Bulletin of Vocational Agriculture.

New Books

Dairy Enterprises, J. C. McDowell and A. M. Field, J. B. Lippincott Co., Philadelphia. 1930. 462 pages. 227 illustrations. Price $2. Another of the Farm Enterprise Series publications. Twenty-seven jobs are presented in connection with management of dairy herds and jobs are presented in connection with management of dairy herds and manufacture and marketing of milk products. The managerial and operative aspects of the different jobs are portrayed, rich in suggestions as to methods of adapting the study to local community and individual home needs. The book should prove valuable to vocational teachers in presenting the dairy enterprise, and should be welcomed by vocational agriculture students in connection with their dairy project work as well as in their classroom study of the enterprise.—A. P. D.

Productive Vegetable Growing. J. W. Lloyd. Philadelphia. J. B. Lippincott Co. Revised 1930. 404 pages, 194 illustrations. Price $3. This new edition of the "Farm Manual" series has 72 pages of new copy on "Job analysis of garden and truck crop enterprises." Each enterprise is set up as a series of jobs, discussing conditions, aims, and problems. A busy teacher will welcome the additional helps which are intended to guide the pupil in his investigations. Most of our schools have used the earlier editions of this book and will doubtless desire to secure the new edition. The earlier paging of the body of the text has been retained by separately paging the analysis section. This makes it possible to use the two editions together. The paging is that referred to in the Watts "Project Manual."—Massachusetts Staff Letter.

Poultry Science and Practice. Roy H. Waite, New York. McGraw-Hill Book Co. 1929. 413 pages, 337 illustrations. Price $3.50. This book combines the older practices with the new for practical uses. The aim to make a useful book has led to several departures from the traditional text. The treatment is not primarily a scientific study but rather a management study with adaptations for both the small flock and the commercial flock. By brief historical paragraphs the author shows how rapidly the poultry industry is changing and he introduces the latest findings as reports of progress. The text will be welcomed as a reference study book for project pupils in poultry since it is definite, reasonably exact, and very readable. Some teachers have already found the book very helpful for this purpose. The type, illustrations, and mechanical work of the book are excellent.—Massachusetts Staff Letter.

Fitting Farm Tools. Louis M. Roehl. Milwaukee. The Bruce Publishing Co. 1930. 102 pages, 137 illustrations. Heavy paper covers. Price $1. This book covers: (1) Grinding equipment; (2) Grinding farm tools; (3) Small saws; (4) Large saws; (5) Farm tool handles; (6) Fitting miscellaneous tools. The method of operation is clearly described and well illustrated. As in his previous books, Mr. Roehl shows a rare ability to make his reader see clearly each part of the job. This manual would be valuable in every farm shop, to be used when the occasion arises. It deals with many repair jobs which occur without warning, many of which a boy would not remember accurately without more practice than he is likely to get during his school years. A boy should collect a little library of manuals of this sort.—Massachusetts Staff Letter.

Future Farmers in Action, A. K. Getman, John Wiley and Sons. Price $1.50. 115 pages. Deals with the building of sound human relationships. Boy heroes are cited and their experiences used in presenting lessons in co-operation and leadership. Fascinating and well written. Vocational students will enjoy reading this story, and in so doing will learn more about the value of organization, what constitutes leadership, and how to choose and support leaders. Anticipating that teachers might interpret this book as being of value only to departments supporting chapters of Future Farmers, I wish to state that the book will contribute greatly when used in this connection; however, its principal value lies in its ability to stimulate learning on the part of both the student and the teacher regardless of the field. Should be read by all vocational workers, particularly those in the field of vocational agriculture, and merits a place in every vocational agricultural library.—A. P. Davidson.

Pride of Ownership

The improvident colonel had purchased, on the installment plan, an ancient saddle horse.

A week after the deal had been made he rode over to see the former owner.

"Hyde," he began, "I am not entirely satisfied with the animal."

"Oh," said the other, "What's wrong?"

"She won't hold her head up," the colonel complained bitterly.

The dealer grinned up at his client.

"That's only her pride," he said smoothly. "You just wait until she's paid for and then see."

* * * *

If you have not yet had a clear understanding with the father of each boy in your class in regard to *ownership of the project by the boy* you are neglecting to fully capitalize the project as an effective method of teaching.—From Mississippi Vocational News.

Score Cards for Supervised Practice

(Continued from page 11)

PROJECT ANALYSIS

Department Visited..... Student .....

Kind of Project..... Size of Project.....

ITEMS TO CONSIDER	Check one: Excellent	Good	Fair	Poor
1. Does the project represent, in selection, an improvement on the home farm?				
2. Do the practices applied in the project represent improvement on the home farm?				
3. Is there definite provision for continuation of the project? (Long-time project)				
4. Are other forms of directed practice undertaken by the student?				
5. Is the project of sufficient size to be worthwhile?				
6. Does the project present problems which give the student opportunity for learning?				
7. Does the present condition of the project indicate proper interest and application on the part of the student?				
8. Does the student have an adequate record in satisfactory condition?				
9. Does the student have a good fund of information concerning the enterprise to which his project belongs?				
10. Does the student have a direct financial interest in his project?				
11. Does the student have the personal management of his project?				
12. Are there evidences of leadership, co-operation, and supervision in the project work?				

Date..... Teacher.....

PROJECT SCORE CARD

	Value	Score	Maximum Score
1. For each month the project was carried	1		12
2. For each supervisor's visit, with comments	1		6
3. For each 25 hours of self labor on project	1		10
4. For each 25 cents labor income per hour	1		10
5. For each $50 of labor income	1		20
6. For each 10 cents of net profit per each dollar invested	1		12
7. For each 10% increase in production over state average (or other set goal)	1		10
8. For each exhibition of the products of project at any fair or show:			
Local	2		
County	2		
State	2		6
9. For project ownership:			
Full ownership	10		10
Half ownership	5		5
Wages paid (no ownership)	2		2
10. For project jubilicity:			
Each newspaper clipping of project	1		2
Each photograph of project (at different stages of development)	1		2
Total Score			
Supervisor's score			

(Using above score card: Fractional parts of the score should be in decimals to nearest hundredths, e. g. 6.67.)

The project record must include a carefully organized plan and well written story to qualify for the state project contest.

I certify that the above is correct to the best of my knowledge.

Signed.....Supervisor

.....Pupil

SCORE CARD FOR SUPERVISED PRACTICE IN VOCATIONAL AGRICULTURE

Name of Student.....School.....Date.....

ITEMS	Perfect Score	Student's Score
1. Project Study Outlines—Working Plans. Desirable objectives or aims. Detailed study of problems with acceptable decisions. Neat and systematic organization.	20	
2. Character of Practice Program. Size and scope satisfactory. Continuation, major and minor projects included. Based upon the true needs, interests, and capacities of the student. Complete ownership by the student.	20	
3. Approved Practices Followed. Use of all approved practices. Timeliness in use.	25	
4. Records and Accounts. Complete, accurate and neat. Satisfactory analysis and financial summary.	10	
5. Educational Outcomes. Initiative shown. Skills and information acquired. Judgment developed. Attitude shown.	15	
6. Financial Outcomes. Total net income. Percent return on investment.	10	
	100	

[**Agricultural Education** will be glad to print score cards which present new ideas so far as space will permit.]

Vocational Agriculture Boys Fatten Fifty-one Baby Beeves

(Continued from page 10)

boys feel that the project was worthwhile as a demonstration to the farmers and cattle raisers of the county that it was possible to feed Texas feeds to Texas cattle at a profit. Some two thousand farmers, ranchers, and citizens watched the judging and studied the individual cost and feed records which were posted over each calf at the show.

An analysis of the costs and returns figured on the actual sales price of the calves in the auction that followed the show is given below.

DATA OF 51 CALVES

Total cost	$2,609.20
Average initial cost	51.16
Total initial weight (lbs.)	24,741
Average initial weight (lbs.)	486
Total pounds of concentrates	84,335
Total cost of concentrates	$1,305.00
Total pounds of roughage	68,070
Total cost of roughage	$ 492.90
Total feed cost	1,797.88
Average feed cost	35.25
Total selling weight (lbs.)	40,590
Average selling weight (lbs.)	769
Total received	$4,705.11
Average received	93.04
Net profit	6.63

Some Experiences With Farm Practice Programs

(Continued from page 11)

students for vocational agricultural courses. Until then we can only do the best we can with each failure, taking into consideration the reason for failure. But I suspect that this group is larger than it should be and that with a proper visualization of our opportunities it will grow smaller.

Many teachers have left the field of vocational education because of the unpleasantness of the summer program of work. Had we been a little more experienced in planning and conducting this type of work this need not have happened. Of course we are but infants still. Our work is little more than ten years old. It will gain momentum as it gains age, until the time will come when practice programs are so taken for granted that failure will be unusual.

Vocational Schools at State Fairs

(Continued from page 14)

fication tags admitted students and instructors to the grandstand.

The fair board set apart a section of "Tent City" for the vocational group. Vocational teachers were responsible for the conduct of their students.

Judging from the splendid attention given at the morning and afternoon schools, and from the evident enjoyment of the group in attendance at the entertainment features, we are led to believe these students, many of whom are just beginning their vocational course, were inspired, entertained, and beneficially educated. With such a program available the vocational agriculture instructor has a plausible excuse for requesting of his high school administrator the privilege of chaperoning his students for a day or so at the fair.